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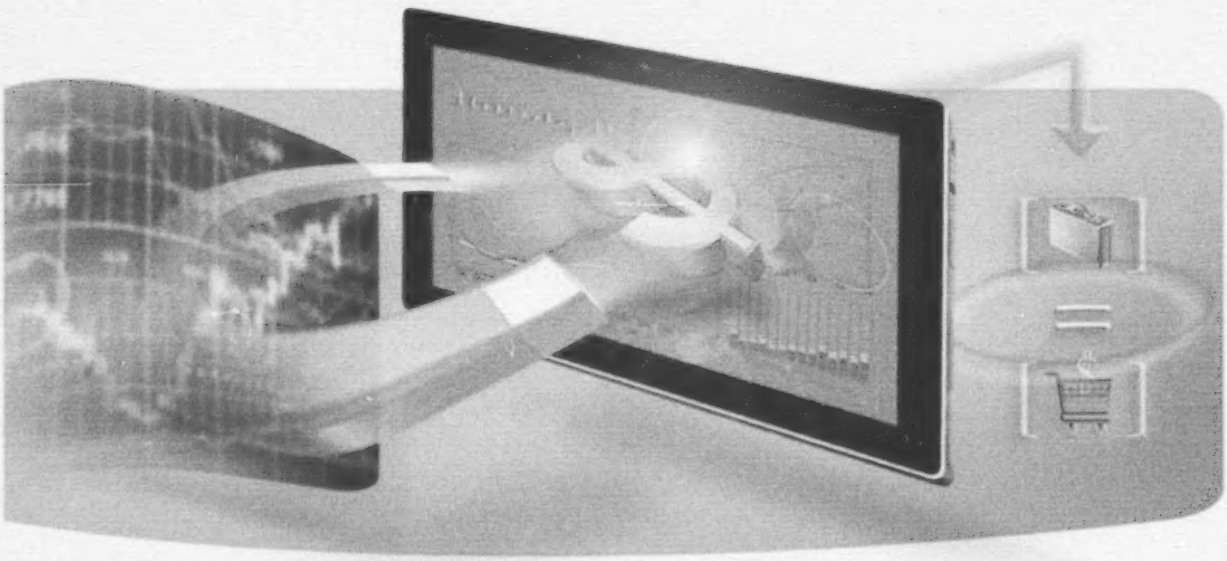
April 2015



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Cat. No. Iu188-121/2015E-PDF
ISBN 978-1-100-25891-1

Aussi offert en français sous le titre *Performance d'exploitation des PME*, avril 2015.

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Executive Summary

This report is about financial and operating performance. It is aimed at shedding light on how Canadian small and medium-sized enterprises (SMEs) generate and protect their money. One of the best ways of understanding how SMEs are performing is to monitor trends in financial and operating data.

In deciding what data to follow, the objective was to cover as many areas of analysis as possible. Some interesting but non-financial measures were excluded as they are widely published by Industry Canada elsewhere. The areas of analysis highlight much of what is happening operationally among SMEs on an aggregate level and were organized into five broad categories:

- Sales Growth
- Profitability
- Efficiency
- Capital Utilization
- Financial Strength

Sales growth, which is probably monitored more closely than any other financial indicator, is an important metric to follow—high sales growth drives earnings growth, which in turn drives gross domestic product (GDP) growth and employment growth—key policy objectives in any economy. Analysis showed that small businesses grew sales by on average 2.2 percent per year over the 2000–12 period compared to 3.5 percent for medium-sized businesses and 5.4 percent for large businesses. Results also confirmed slowing sales growth for businesses of all sizes during recessionary periods and accelerating sales growth during expansionary periods. Interestingly, analysis showed greater stability in small business sales growth than medium-sized and large business sales growth. That is, while small business sales growth increased at slower rates during expansionary periods, it also decreased at slower rates during recessionary periods.

Business profitability was assessed to gain insight into how successful SMEs are at building and maintaining wealth. Analysis showed that the average Canadian business made $131,000 in profits in 2012, increasing from $74,000 in 1999. Analysis also showed that the SME segment of the business population was capturing an increasing share of total business profits. That is, small and medium-sized businesses have increased their share of total business profits from 15 percent and 8 percent in 1999 to 25 percent and 12 percent in 2012 respectively. SMEs also displayed more rapid earnings growth over the evaluation period, with small, medium-, and large- sized businesses growing earnings by an average rate of 15 percent, 11 percent and 7 percent per year respectively.

Financial data was also used to assess business productivity. For more than a decade, the state of Canada's productivity has been a concern for politicians, the media, and economists. Statistics here, and in particular asset turnover ratios, provide a more positive result. Following the end of the recession, business productivity based on asset turnover ratios actually increased. Furthermore, allowing for a disaggregation of the data by business size, analysis showed that on an aggregate level medium-sized businesses have historically been the most productive business size group, generating an average asset turnover ratio of 1.8 compared to 1.0 for small businesses and 1.0 for large businesses.

Key financial metrics, such as return on assets, return on equity, and Sharpe ratios were used to assess capital utilization. Businesses with higher return on assets and equity generally have more earnings to reinvest back into their business and can support higher rates of growth moving forward. Trend analysis showed that changes in return on assets and equity followed similar patterns over the period. While large businesses tended to outperform SMEs early in the evaluation period, SMEs tended to outperform large businesses later in the evaluation period. This change could be at least partially attributable to the decline in the small business tax rate and a surge in profitability in the professional, scientific and technical services sector and the construction sector (sectors with high SME concentrations), which between 2000 and 2012 saw their net profit margins rise by over 10 percentage points and 4 percentage points respectively.

An assessment of financial strength involves primarily an assessment of business debt. A company with more debt has a greater percentage of fixed costs-to-total costs in its operating structure. In good times this is less of a concern; in bad times it increases the risk of financial distress. From 1999 to 2012 there was a sustained drop in the use of debt by SMEs. Specifically, debt-to-equity ratios over the period fell from 2.0 to 1.4 for small businesses and 2.3 to 1.6 for medium-sized businesses. The debt-to-equity ratio for large businesses remained steady at about 1.4. Additionally, small and medium-sized businesses' debt repayment ratios fell from 22.8 years to 11.2 years and 20.0 years to 10.7 years respectively. Debt repayment ratios for large businesses stayed flat averaging 13.7 years. The decline in debt meant less financial risk for businesses, contributed to the strong recovery from the recession, and helps explain the declining trend in business bankruptcies over the period.

The operating metrics presented in the report aims at providing an understanding of some of the trends in SME performance and operations and the causal relationships between variables and the information should be useful for policymakers focused on supporting SMEs as they grow.

1. Introduction

Overview

This report is about financial and operating performance and aims at shedding light on how small and medium-sized enterprises (SMEs) generate and protect their money. No matter how much or how little money business owners have, they work hard to earn it and, with a little luck and a lot of devotion, see it grow over time. One of the best ways to understand how SMEs are performing is to monitor trends in financial and operating data; not just a few key metrics reported in the media, but a whole series of metrics, many of which are unfamiliar to economists and policy makers but are familiar to accountants and financial analysts. With an awareness of SME performance, business owners can make changes within their operations and policy makers can make policies and programs more effective.

Anyone with an interest in studying how the Canadian economy, and SMEs in particular, performed in response to the 2007–08 financial crisis and ensuing global recession should find this report interesting. Supporting the health and growth of SMEs is crucial for Canada's economy; after all, they account for about 99 percent of Canada's businesses.[1]

Content

The objective of this report was to help stakeholders better understand how SMEs performed over the 1999–2012 period by assembling a list of indicators to cover key dimensions of analysis. Some interesting indicators, such as data on employment growth, export intensity, and growth obstacles, were excluded as they are widely published. Information on this data is found on the Industry Canada's SME Research and Statistics website (www.ic.gc.ca/SMEresearch) or the Bank of Canada's periodicals.

The indicators in this report are organized into five broad categories:

- Sales Growth
- Profitability
- Efficiency
- Capital Utilization
- Financial Strength

These categories encompass most of what is happening financially among SMEs, and indicators are presented for each category. Each section begins by outlining the technical definitions used in the analysis. It is necessary to understand these definitions and put them together to see the big picture. For policy makers, knowledge of financial indicators allows for a better understanding of economic fluctuations, which aides in the development of policy.

1. Industry Canada, *Key Small Business Statistics*, 2013.

Why SMEs?

SMEs have a large impact on the Canadian economy. Data from Industry Canada's 2013 *Key Small Business Statistics* showed that small businesses represent 98.2 percent and medium-sized businesses represent 1.6 percent of Canada's employer businesses. About 69.7 percent of the total private sector labour force work for small businesses and 20.2 percent work for medium-sized businesses. Since 2002, small businesses have created 77.7 percent of all private sector jobs while medium-sized businesses created 12.5 percent. Together, SMEs account for about 52 percent of private sector gross domestic product (GDP). Due to their influential role, familiarity with the behaviour and performance of Canadian SMEs is crucial to better understanding the broader Canadian economy.

Data Source

The main data source used for this study was Statistics Canada's *Financial and Taxation Statistics for Enterprises* database. This database contains aggregate financial statement data on Canadian incorporated businesses, with detailed information on business assets, liabilities, equity, revenues, profits, and federal taxes.

The information in the database comes from three different sources: the Quarterly Survey of Financial Statements; the survey of provincial or federal level government business enterprises that operated in the business sector; and administrative corporate taxation data, such as T2 Corporation Income Tax returns and the General Index of Financial Information.[2]

All data is annual and covers the 1999 to 2012 period.

Based on the data aggregations available in the *Financial and Taxation Statistics for Enterprises* database, and for the purpose of this study, small businesses were defined as businesses with annual operating revenues of less than $5 million. Medium-sized businesses were defined as businesses with revenues between $5 million and $25 million, and large businesses were defined as businesses with more than $25 million in annual revenues.[3]

SME Representation

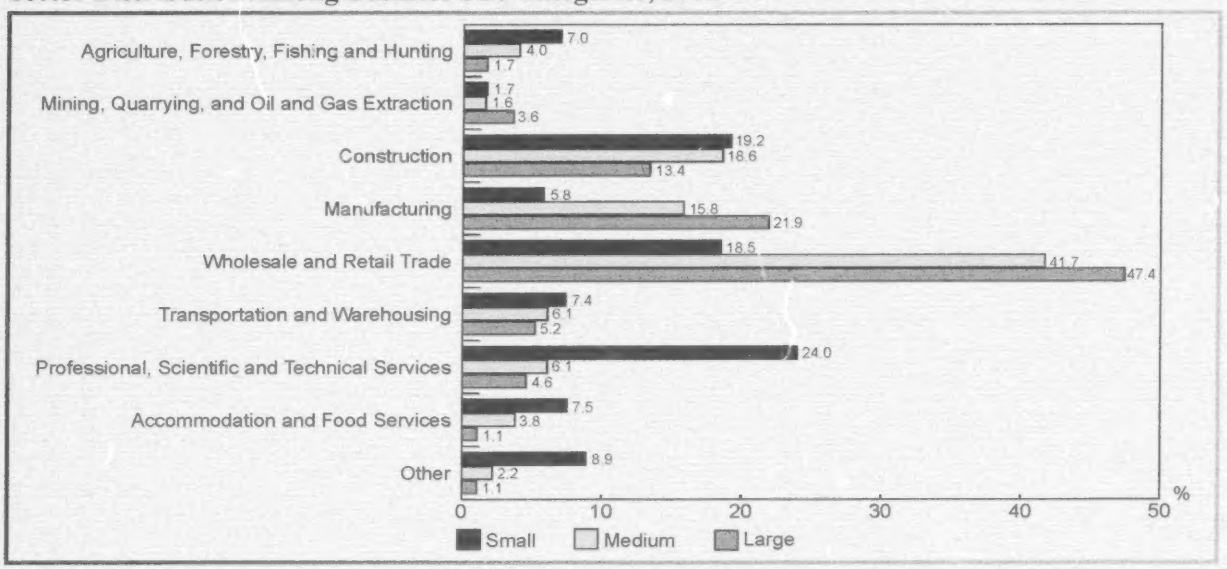
In total, 925,857 SMEs were captured in the *Financial and Taxation Statistics for Enterprises* database in 2012, representing about 99 percent of the total 935,980 businesses in the database. This representation has remained steady over the years and is consistent with the overall structure of the Canadian economy within the selected sectors. Figure 1.1 compares the sectorial distributions by size of business.

Small businesses were more highly concentrated in the services sector than medium-sized and large businesses, with 40.4 percent of businesses operating in accommodation and food services; professional, scientific and technical services; or other services. In contrast, only 12.1 percent of medium-sized businesses and 6.8 percent of large businesses belonged to those sectors. Medium-sized and large businesses were more highly concentrated in the wholesale and retail trade sector and the manufacturing sector. Moving forward, these sectoral concentrations should be kept in mind when examining the financial results.

2. The *Financial and Taxation Statistic for Enterprises* database collects data on incorporated businesses only. Due to a lack of available financial information on unincorporated businesses, it is unclear whether their omission has introduced any biases into the analysis.

3. Definitions used in other sources to classify businesses by size include: number of employees (with small having 1–99, medium having 100–499, and large having 500 or more) and loan authorization levels (with small having levels below $1 million, medium having levels from $1 million but less than $5 million, and large having levels of $5 million or more).

Figure 1.1
Sector Distribution Among Business Size Categories, 2012



Sources: Statistics Canada, *Financial and Taxation Statistics for Enterprises*, 1999–2012; and author's calculations.

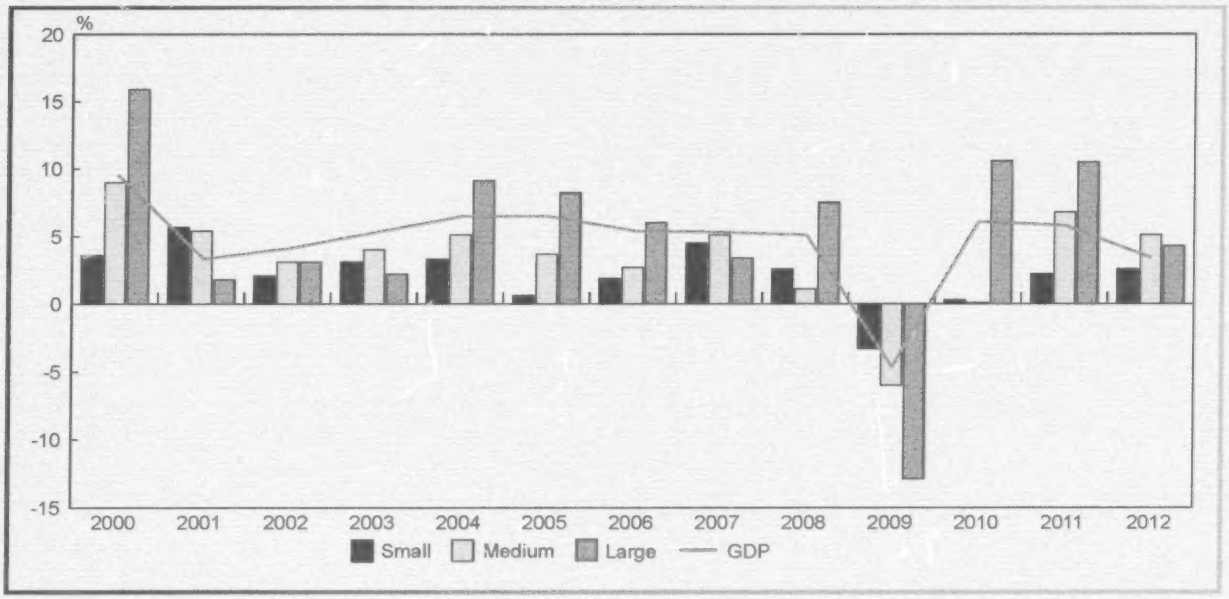
2. Sales Growth

Business growth has probably been monitored more closely than any other financial metric. High sales growth leads to strong employment growth and earnings growth, which in turn drives GDP growth and is therefore an important metric to follow. High growth rates come from finding new ways of selling goods and services, charging higher prices, developing and selling new goods and services, and by exploiting synergies gained by buying other companies. Research shows that exceptional rates of growth are difficult to sustain one year to the next as firms get larger. That is, doubling sales from $50 thousand to $100 thousand is operationally much simpler than doubling sales from $1 billion to $2 billion. Consequently, strong sales growth today does not necessarily mean strong sales growth in the future. This section details how Canadian businesses have grown over the 1999–2012 period and gives some insight into changes in the overall health of the economy.

Sales Growth—by Size of Business

Sales growth is a good indicator of economic activity. Businesses and consumers scale back on purchases when they do not feel confident about their future job security or level of profitability and increase purchases when they do. As shown in Figure 2.1, sales growth slowed for businesses of all sizes at the start of the evaluation period following the dot-com crash.

Figure 2.1
Revenue Growth Rate by Business Size (percentage), Nominal GDP Growth Rate (percentage), 2000–12



Sources: Statistics Canada, *Financial and Taxation Statistics for Enterprises*, 1999–2012; Statistics Canada, Table 384-0038; and author's calculations.

Interestingly, growth slowed the most for medium-sized and large businesses moving into the slowdown of the early 2000s. The analysis also showed that the decline in small business growth was less severe than that of other business sizes. Overall, growth picked up before the mid-decade boom then reversed sharply during the 2009 recession. The decline in growth was again most severe for medium-sized and large businesses.[4] Small business growth fell at a much lower rate, but has been slower to recover after the recession.[5]

An important area of analysis surrounding business sales is the difference between sales growth and GDP growth. Analysed together, sales and GDP growth can provide insights on where businesses or sectors are positioned in their operating life cycles. For example, sales growth that falls consistently below GDP growth could signal declining competiveness within that specific business segment or sector.[6]

4. Correlation coefficients between revenue growth (by business size category), current period GDP growth and lagged GDP were calculated. Large businesses had a much stronger current period correlation between GDP and revenue growth at 0.95 percent than small and medium-sized businesses at 0.60 percent and 0.79 percent respectively. One-period lagged correlations, however, are stronger for SMEs than for large businesses. Specifically, one-period lagged correlations, which correlate current period revenue growth with GDP growth from the previous year, were 0.38 percent for small businesses and 0.35 percent for medium-sized businesses, compared to -0.22 percent for large businesses. This implies that, while SME growth does turn with the economy, it has a weaker current period effect than large businesses, and a stronger lagged effect.

5. Results are consistent with finding from a 2011 RBC study. Counter to concerns that smaller enterprises are generally more impacted by economic downturns, Royal Bank of Canada found that smaller businesses endured the 2009 recession better than their larger counterparts and that the relative success of private sector SMEs likely reflected lower exposure to external markets such as the United States, which saw greater weakness compared to Canada's domestic economy.

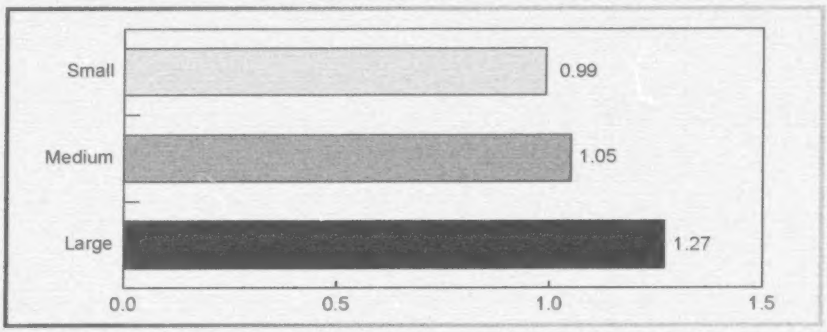
6. It is important to look for consistency: a positive spread over one year does not represent meaningful evidence.

As illustrated in Figure 2.1, there is a consistent negative spread between GDP growth and SME growth.[7] This could suggest that:

- Canadian SMEs are largely at or near a state of maturity or decline in their operating life cycles;
- SME business owners might be pursuing fewer growth opportunities;
- SMEs might be losing market share to larger businesses or are being acquired; or
- SMEs are selling increasingly fewer higher value added products/services than their larger counterparts.

Another area of analysis is relative sales risk. That is, the relative stability of sales growth across businesses. Stable sales equate to stable production, employment, tax revenues and a stable economy. As seen in Figure 2.1, sales growth for large businesses is relatively more volatile than for small businesses. This can be better seen in Figure 2.2, which compares coefficients of variation (CV).[8]

Figure 2.2
The Coefficient of Variation in Revenue Growth by Business Size, 2000–12



Sources: Statistics Canada, *Financial and Taxation Statistics for Enterprises*, 1999–2012; and author's calculations.

Large businesses had the highest CV of 1.27 on average sales growth of 5.4 percent, compared to a CV of 1.05 for medium-sized businesses and 0.99 for small businesses on average sales growth of 3.5 percent and 2.2 percent respectively. This indicates that, while on average large businesses grew at a faster rate than small and medium-sized businesses over the 2000–12 time period, their growth was less stable.

Sales Growth—by Sector

Assessing growth data is important from more than just a business size perspective, sector breakdowns are also revealing. When certain key sectors are underperforming (e.g., manufacturing or construction) and they are interlinked with other sectors, then sales in these others sectors are likely suffering as well.

Table 2.1 lists SME revenue growth rates by sector. Before the 2009 recession, the data shows that mining, quarrying, and oil and gas extraction and construction were Canada's hottest sectors, with average annual growth of 8.5 percent and 6.8 percent respectively. Growth in the manufacturing sector was consistently weak, and became negative from 2006 to 2010. In 2009, mining, transportation, and manufacturing experienced the largest year-over-year decline. Growth rates in 2012 appeared to be returning to mid-cycle levels for most sectors.

7. Small and medium-sized businesses grew on average 2.51 percent and 1.28 percent less than GDP growth respectively. Small businesses had lower growth relative to GDP in all but two years, and medium business only outmatched GDP in three of the years within the time period. Large businesses grew more than GDP growth in half of the years and less than GDP in half of the years, but on average grew 0.62 percent more than GDP growth over the full period.

8. This is a measure of relative volatility that controls for business size by dividing the standard deviation of sales growth over the period by total average sales growth.

Table 2.1
Revenue Growth Rates of SMEs by Sector (percentage), 2000–12

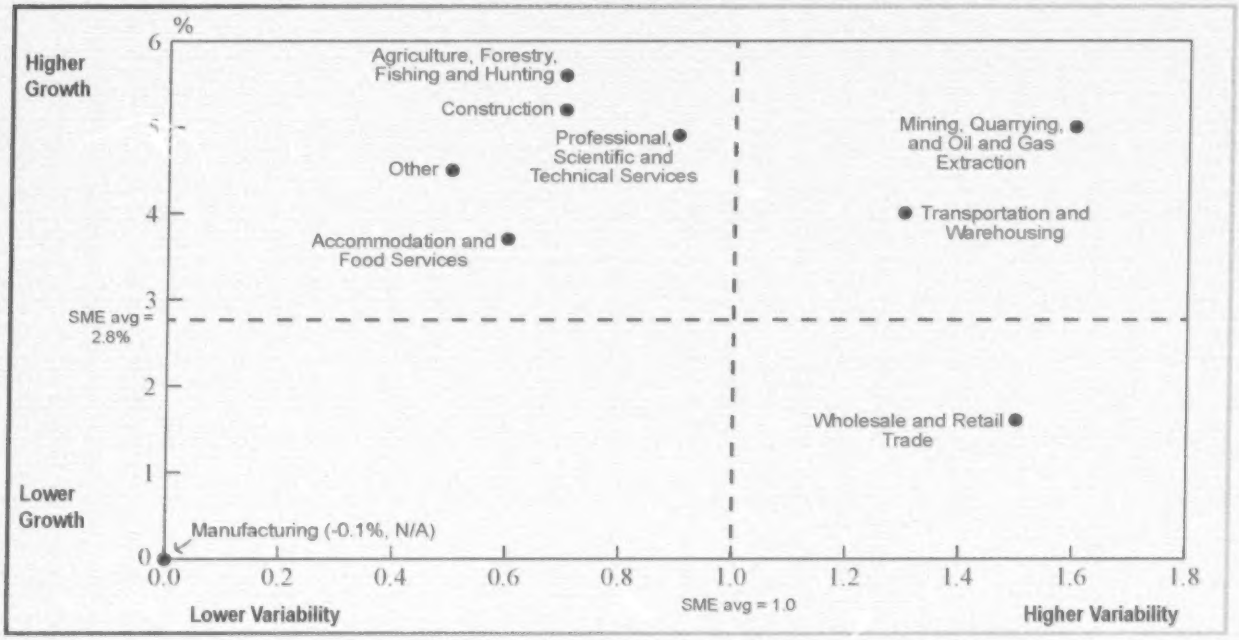
Sector	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Avg
Agriculture, Forestry, Fishing and Hunting	9.9	7.6	4.2	4.5	4.8	2.5	3.5	6.5	6.5	-2.7	1.5	13.2	10.2	5.6
Mining, Quarrying, and Oil and Gas Extraction	13.1	13.8	-1.6	8.1	12.0	13.8	4.1	2.6	10.3	-13.8	-0.7	-2.9	6.0	5.0
Construction	7.2	7.2	5.4	9.3	7.3	5.9	7.1	6.8	5.0	-5.2	1.4	5.8	4.4	5.2
Manufacturing	4.1	2.0	-0.3	0.9	2.2	0.5	-0.6	-1.4	-2.3	-7.7	-2.4	2.4	1.9	-0.1
Wholesale and Retail Trade	4.5	4.2	2.6	2.5	2.5	-0.5	-0.3	5.0	-0.6	-2.8	-0.9	2.3	1.9	1.6
Transportation and Warehousing	9.3	7.2	2.7	5.1	7.0	4.5	7.1	3.6	1.9	-10.8	1.3	7.8	5.3	4.0
Professional, Scientific and Technical Services	11.5	10.9	2.2	2.5	6.3	5.0	4.0	10.4	5.0	-4.6	2.0	3.9	5.2	4.9
Accommodation and Food Services	4.7	8.5	2.8	1.9	3.6	0.4	2.9	5.4	4.9	-0.4	3.8	4.6	5.3	3.7
Other	5.8	7.7	3.9	2.2	5.7	4.1	4.3	5.8	5.0	-1.0	1.6	7.3	5.8	4.5

Sources: Statistics Canada, *Financial and Taxation Statistics for Enterprises*, 1999–2012; and author's calculations.

In assessing sector growth it is important to recognize that not all growth is equal. An upward growth trend that fluctuates erratically due to business churn (i.e., opening and closing of businesses) is not stable growth. Consequently, it is useful to look at growth in relation to growth volatility. Ideally, it is best to see both (1) positive and (2) stable sales growth year-over-year. Lower but more stable growth is also acceptable as it can result in stable employment. Figure 2.3 compares average sector revenue growth rates with revenue growth CV.

Generally speaking, SMEs in the mining, quarrying, and oil and gas extraction sector and the transportation and warehousing sector grew on less stable but higher growth trajectories over the 2000–12 period. Manufacturing is in a category of its own—being a stable decliner with an average growth rate of -0.1 percent. SMEs in the wholesale and retail sector can be considered higher risk businesses in this period because they displayed both low and unstable growth. Canada's top performers were all located in the upper left quadrant displaying both above average growth and relatively stable growth paths.

Figure 2.3
Average Revenue Growth (vertical axis) and Coefficient of Variation (horizontal axis) of SMEs by Sector, 2000–12



Sources: Statistics Canada, *Financial and Taxation Statistics for Enterprises*, 1999–2012; and author's calculations.

3. Profitability

Assessing business profit margins and total profitability is one of the best ways of assessing whether businesses are building value, which translates into economic growth. Despite their usefulness, these indicators are typically given a cursory look by policy analysts compared to GDP statistics. This analysis focuses on corporate profitability; the portion of GDP that flows to business owners after deducting labour's share of income.

Net Profits—by Size of Business

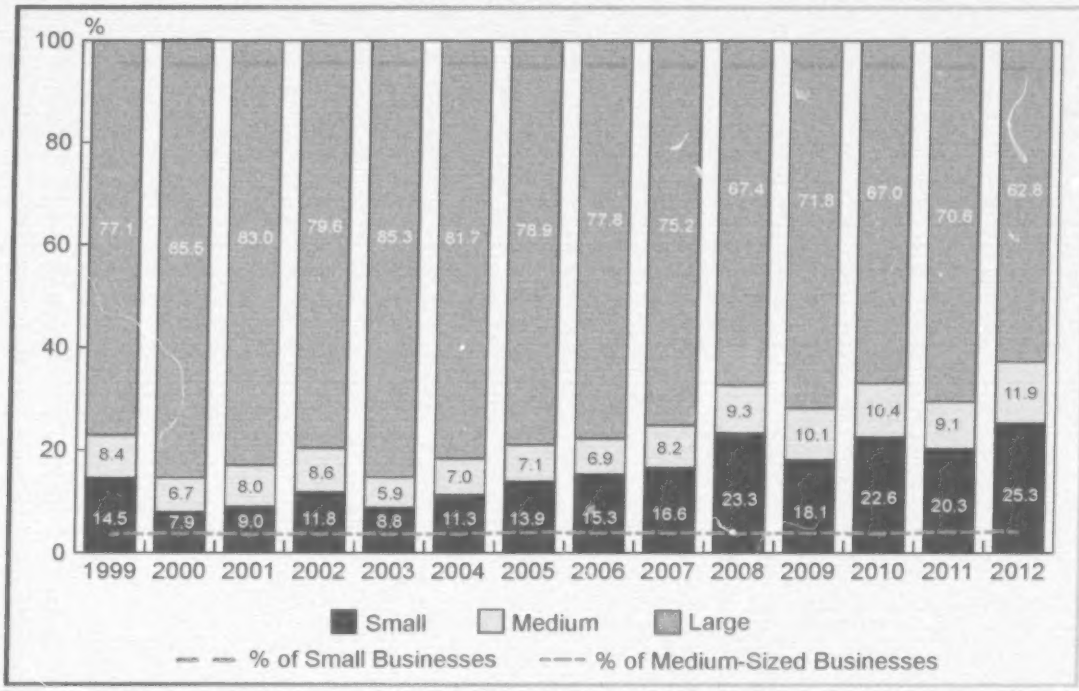
Statistics Canada estimates show that businesses earned about $1.25 trillion in net profits over the 1999–2012 evaluation period, or on average $89 billion per year. This is total profits after subtracting production and operating costs, depreciation/depletion charges, interest expenses, taxes and any other costs. In 2012 there were about 936 thousand businesses in the *Financial and Taxation Statistics for Enterprises* database, with net profits per business of about $131,000 growing from $74,000 per business in 1999.

Insights can be gained by monitoring the distribution of profits as well as trends in the size of profits. Is income widely distributed, with small and medium-sized businesses earning a substantial share of the income? Are profits concentrated in the hands of larger corporations while the rest barely survive?

Figure 3.1 presents the income distribution of small, medium and large businesses each year between 1999 and 2012. The percentage of small and medium-sized businesses in operation is also presented. On average, large businesses accounted for about 76 percent of profits generated per year. Small and medium-sized businesses accounted for

approximately 16 percent and 8 percent respectively. While the percentage of small and medium-sized businesses in operation remained stable over the period, their share of total business profits increased over the period from 15 percent and 8 percent in 1999 to 25 percent and 12 percent in 2012 respectively. Large business' share of total profits decreased from 77 percent to 63 percent.

Figure 3.1
Income Distribution by Business Size, 1999–2012



Sources: Statistics Canada, *Financial and Taxation Statistics for Enterprises*, 1999–2012; and author's calculations.

In addition to seeing well dispersed income, it is desirable to see growing and stable income. For the most part, profit growth follows a similar path as sales growth—it falls during recessions and rises during expansions—though sometimes one variable turns more quickly than the other.[9]

The economics of this is straightforward: increased demand for goods and services by consumers and businesses pushes up volumes and prices during the good times, which boosts profits. The opposite occurs during down times—decreased demand for goods and services by consumers and businesses pushes down volumes and prices fall.

Average profit growth rate, the standard deviation of profit growth, and the coefficient of variation are presented by business size in Table 3.1 Average profit growth over the period was negatively related to the size of the business, and the standard deviation showed that volatility was highest for small business. However after controlling for size, relative growth volatility for small and medium-sized businesses was lower than that for large businesses (as shown by their coefficients of variation—types of "risk/reward ratios"). This suggests that the rates of profit growth achieved by SMEs over the evaluation period were significantly higher than those achieved by large businesses given the amount of volatility experienced to capture their profits.

9. Data from the Financing and Statistics Database shows that for SMEs, profits actually turned more quickly than sales. For example, in advance of the 2000–01 period profits turned downward about 1 to 2 years before sales fell.

Table 3.1
Average Profit Growth Rate, Standard Deviation of Profit Growth, and Coefficient of Variation by Business Size, 2000–12

Business Size	Average	Standard Deviation	Coefficient of Variation
Small	15.4%	31.6%	2.1
Medium	10.6%	17.7%	1.7
Large	7.3%	24.2%	7.7

Sources: Statistics Canada, *Financial and Taxation Statistics for Enterprises*, 1999–2012; and author's calculations.

Net Profits—by Sector

Understanding profits across sectors is important because not all businesses will be similarly affected by changing economic conditions. Recessions hurt businesses whose sales and capital are least able to handle drops in demand, such as highly indebted businesses that sell discretionary goods.

Table 3.2 compares rates of growth in annual net profits by sector. From 2000–12 professional, scientific and technical services and accommodation and food services had the largest average net profit growth rates of 27 and 25 percent respectively. All other industries grew between 10 and 18 percent within this time period, except for the mining, quarrying, and oil and gas extraction sector, which experienced loses in every year.

Table 3.2
Profit Growth Rates of SMEs by Sector (percentage), 2000–12

Sector	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Avg
Agriculture, Forestry, Fishing and Hunting	27	14	-1	-34	51	29	15	31	29	-37	54	45	8	18
Mining, Quarrying, and Oil and Gas Extraction	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Construction	-32	25	23	24	32	33	25	26	4	-25	17	14	21	14
Manufacturing	-37	-45	19	-55	100	15	69	-8	30	-78	100	19	34	12
Wholesale and Retail Trade	-30	16	17	10	27	22	20	7	4	-10	35	0	13	10
Transportation and Warehousing	2	-11	-5	-2	38	31	33	-14	30	-42	57	31	12	12
Professional, Scientific and Technical Services	-28	L	P	-27	100	100	40	34	9	-9	40	32	4	27
Accommodation and Food Services	L	P	23	-43	100	54	82	23	7	-33	34	-5	31	25
Other	-24	17	36	-10	31	27	33	10	7	-11	17	22	21	14

Sources: Statistics Canada, *Financial and Taxation Statistics for Enterprises*, 1999–2012; and author's calculations.
Note 1: Annual growth rates in excess of 100 percent were considered outliers and were reduced to 100 percent to avoid skewing the averages.
Note 2: Profit growth is the percentage change from one year to the next. Profit growth is not provided if either the latest period or the year-ago period contains a net loss. If a company posts a profit in the latest period against a loss in the year-ago period, the percent change is represented as a "P." Similarly, if a company posts a loss in the latest period against a profit in the year-ago period, the percent change is represented as an "L."
Note 3: "—" indicates that the data is not meaningful as the sector posted losses in all periods.

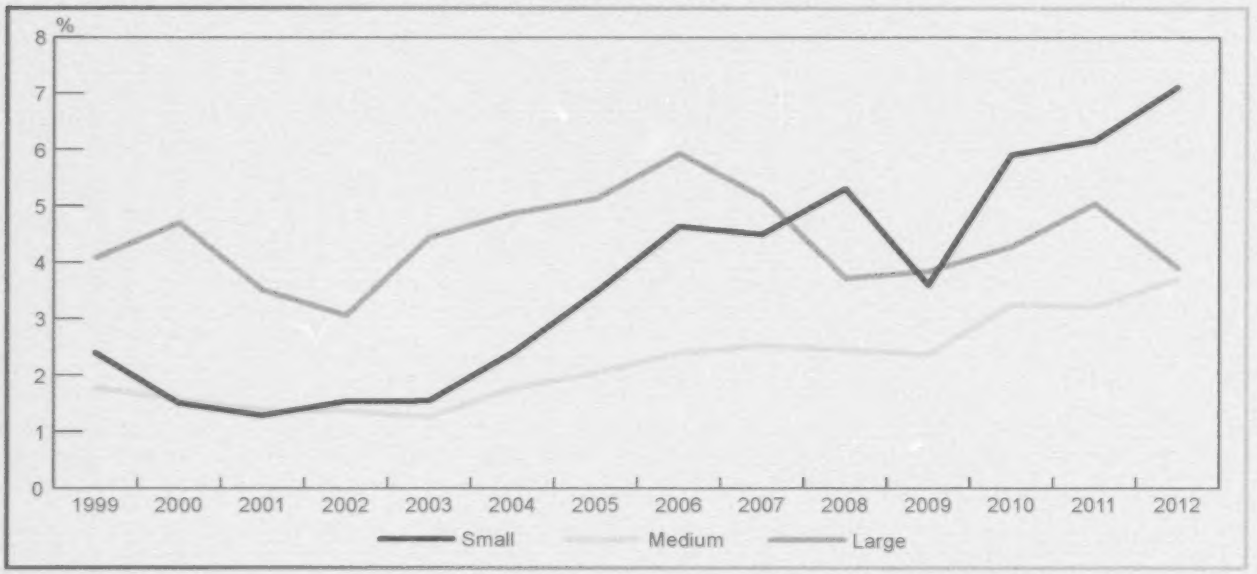
The manufacturing sector was hit hardest during the 2009 recession, and agriculture, construction, transportation, and accommodation had significant declines in profitability. Wholesale and retail trade; professional, scientific and technical services; and other services experienced modest declines in profitability. Following the recession, all industries recovered. Between 2010 and 2012 most sectors' net profits grew on average between 16 and 51 percent a year.

Net Profits Margins—by Size of Business

Net profit margin is calculated as net profits after taxes divided by sales. It demonstrates how much of every dollar in revenue a firm keeps as profit after deducting the costs of doing business.

As shown in Figure 3.2, large businesses operated on the highest margins at the beginning of the period. Between 1999 and 2003, the average net profit margin for large businesses was 4.0 percent, compared to 1.7 percent for small businesses and 1.5 percent for medium-sized businesses. Margins strengthened for SMEs between 2004 and 2012, rising from 2.4 percent to 7.0 percent for small businesses and 1.8 percent to 3.7 percent for medium-sized businesses. Margins for large businesses remained fairly flat over the period fluctuating between a low of 3.1 percent in 2002 and a high of 5.9 percent in 2006.

Figure 3.2
Net Profit Margin by Business Size (percentage), 1999–2012



Sources: Statistics Canada, *Financial and Taxation Statistics for Enterprises*, 1999–2012; and author's calculations.

Net Profits Margins—by Sector

As shown in Table 3.3 businesses in the agriculture, forestry, fishing and hunting sector and the professional, scientific and technical services sector, operated on the highest margins over the period, averaging 8.4 percent and 6.3 percent respectively. SMEs that operated on the lowest margins over the period include the manufacturing industries, as well as the wholesale and retail trade industries, which averaged 2.0 percent and accommodation and food services, which averaged 2.1 percent. Businesses in the mining, quarrying, and oil and gas extraction sector lost money over the period and operated on negative margins.

Table 3.3
Net Profit Margin of SMEs by Sector (percentage), 1999–2012

Sector	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Avg
Agriculture, Forestry, Fishing and Hunting	5.2	6.0	6.3	6.0	3.8	5.4	6.8	7.6	9.4	11.3	7.3	11.1	14.2	13.9	8.4
Mining, Quarrying, and Oil and Gas Extraction	-27.2	-11.7	-6.4	-11.6	-2.8	-1.5	-3.3	-3.4	-29.7	-25.4	-23.6	-5.6	-47.6	-37.0	-16.9
Construction	3.1	1.9	2.3	2.6	3.0	3.7	4.6	5.4	6.4	6.3	4.9	5.7	6.1	7.1	4.6
Manufacturing	3.5	2.1	1.1	1.3	0.6	1.2	1.4	2.3	2.1	2.8	0.7	2.8	3.3	4.3	2.0
Wholesale and Retail Trade	1.4	0.9	1.0	1.1	1.2	1.5	1.9	2.2	2.3	2.4	2.2	3.0	2.9	3.2	2.0
Transportation and Warehousing	2.9	2.7	2.2	2.1	1.9	2.5	3.1	3.9	3.2	4.1	2.7	4.1	5.0	5.3	3.3
Professional, Scientific and Technical Services	3.9	2.5	-0.2	0.3	0.2	2.3	5.1	6.9	8.3	8.7	8.2	11.3	14.4	14.2	6.3
Accommodation and Food Services	1.5	-0.1	0.4	0.4	0.2	1.2	1.8	3.1	3.7	3.7	2.5	3.2	2.9	3.7	2.1
Other	2.6	1.9	2.0	2.7	2.4	2.9	3.6	4.6	4.7	4.8	4.4	5.0	5.7	6.5	3.9

Sources: Statistics Canada, *Financial and Taxation Statistics for Enterprises*, 1999–2012; and author's calculations.

4. Efficiency

For more than a decade, the state of Canada's productivity has been a concern for politicians, the media, and economists. Statistics here, and in particular asset turnover ratios, provide a more positive result. Following the end of the recession, business productivity based on asset turnover ratios actually increased. Furthermore, allowing for a disaggregation of the data by business size, analysis shows that on an aggregate level medium-sized businesses have historically been the most productive size group.

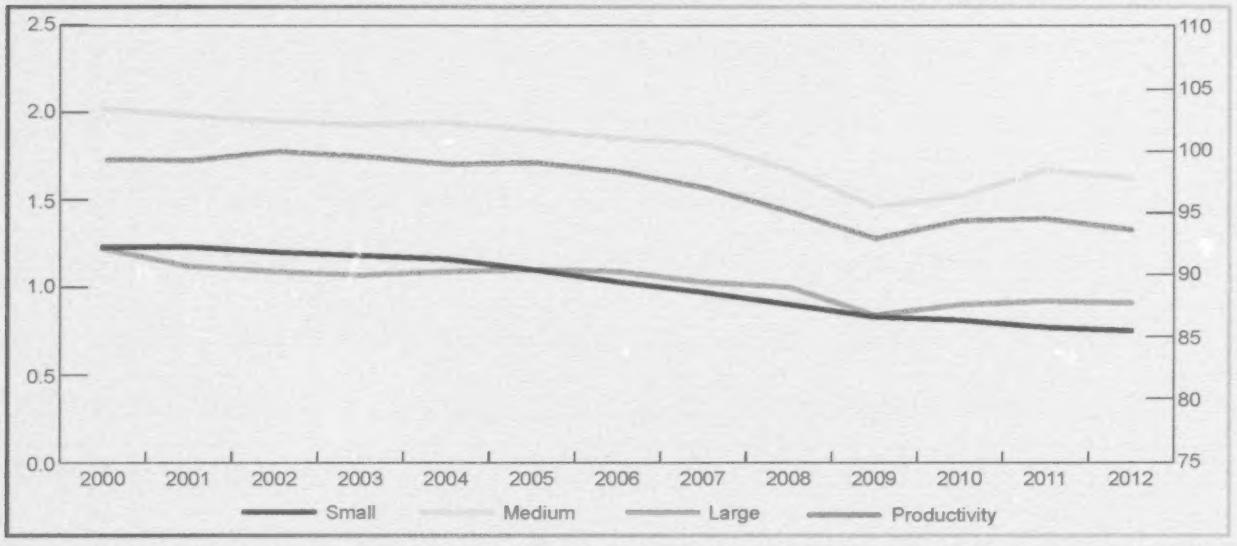
Efficiency—by Size of Business

The asset turnover ratio measures the amount of sales generated per average dollar of assets. It indicates the efficiency with which companies utilize their assets. The higher the ratio the better: it implies that a company is generating more revenue per dollar of assets. Changes in asset turnover over time show whether businesses are improving or deteriorating in their usage of assets.

Multifactor productivity measures the efficiency with which inputs are used in production. It is the ratio of Real GDP to combined labour and capital inputs.

Multifactor productivity and asset turnover moved in sync over the evaluation period (Figure 4.1).[10] Asset turnover for small businesses decreased from 1.2 in 2000 to 0.8 in 2012. For medium-sized businesses it decreased from 2.0 to 1.6 and for large businesses it decreased from 1.2 to 0.9. Canadian productivity decreased from 99.3 in 2000 to 93.6 in 2012.[11] Multifactor productivity and asset turnover fell most sharply during the recession of 2009. Both indicators reversed after the recession for medium-sized and large businesses, but still had not reversed for small businesses by 2012.

Figure 4.1
Asset Turnover Ratio by Business Size (left axis), Multifactor Productivity (right axis), 2000–12



Sources: Statistics Canada, *Financial and Taxation Statistics for Enterprises*, 1999–2012; Statistics Canada, Table 383-0021: Multifactor productivity, value-added, capital input and labour input in the aggregate business sector and major sub-sectors, 1999–2012; and author's calculations.

10. The coefficient correlation between multifactor productivity and asset turnover was 0.96 for small businesses, 0.95 for medium businesses, and 0.91 for large businesses.

11. Multifactor productivity has been indexed to 100 in 2002.

Asset turnover can also be used to better understand relative productivity. Consistently higher asset turnover ratios tend to signal higher productivity groups. Medium-sized businesses had an average asset turnover ratio of 1.8 compared to 1.0 for both small and large businesses. Therefore, using this measure, medium-sized businesses appear to be generally more effective at utilizing their production resources.[12]

Efficiency—by Sector

In addition to considering asset turnover by size of business, it can also be useful to look at asset turnover across sectors (Table 4.1). Consistent with Figure 4.1, the long-term trend in asset turnover for SMEs in all sectors has been generally downwards; dipping most during the recession and recovering with the economy after the recession. On average, SMEs in the wholesale and retail trade had the highest ratios over the period (2.19). Ratios were lowest among SMEs in the mining, quarrying, and oil and gas extraction; agriculture, forestry, fishing and hunting; and professional, scientific and technical services sectors (0.22, 0.60 and 0.88 respectively).

Table 4.1
Asset Turnover Ratio of SMEs by Sector, 2000–12

Sector	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Avg
Agriculture, Forestry, Fishing and Hunting	0.70	0.70	0.67	0.65	0.63	0.61	0.59	0.58	0.57	0.53	0.51	0.52	0.52	0.60
Mining, Quarrying, and Oil and Gas Extraction	0.30	0.32	0.27	0.29	0.30	0.27	0.22	0.18	0.16	0.11	0.12	0.12	0.12	0.22
Construction	1.25	1.29	1.31	1.34	1.33	1.31	1.28	1.20	1.12	1.00	0.98	0.98	0.95	1.18
Manufacturing	1.52	1.49	1.48	1.47	1.46	1.44	1.40	1.32	1.23	1.11	1.10	1.14	1.15	1.33
Wholesale and Retail Trade	2.45	2.43	2.41	2.38	2.34	2.27	2.19	2.17	2.06	1.97	1.94	1.92	1.90	2.19
Transportation and Warehousing	1.41	1.41	1.37	1.39	1.43	1.49	1.55	1.45	1.41	1.26	1.28	1.34	1.31	1.39
Professional, Scientific and Technical Services	1.04	1.01	0.95	0.93	0.94	0.92	0.91	0.92	0.87	0.79	0.77	0.72	0.68	0.88
Accommodation and Food Services	1.45	1.56	1.55	1.50	1.47	1.43	1.43	1.40	1.38	1.33	1.33	1.32	1.32	1.42
Other	1.61	1.63	1.59	1.54	1.49	1.42	1.38	1.36	1.32	1.24	1.21	1.23	1.21	1.40

Sources: Statistics Canada, *Financial and Taxation Statistics for Enterprises*, 1999–2012; and author's calculations.

5. Capital Utilization

In Section 3, business profitability was assessed by looking at average profits per business, profit growth, and net profit margins. Those indicators provided an idea of whether the revenue generating power of the average Canadian business was sufficient to cover the costs of operations. However, none of these indicators accounted for the amount of money invested in the businesses. A fundamental aim of this report is to assess how much revenue companies make in excess of costs, per dollar of capital invested. Businesses with higher excess revenues per dollar of capital invested will have more earnings to reinvest back into their business, which will support growth moving forward. By assessing returns in this manner, it is possible to gain perspective on how effective companies are at transforming capital into earnings.

The key indicators used within this section are returns on assets (ROA), returns on equity (ROE), and Sharpe ratios.

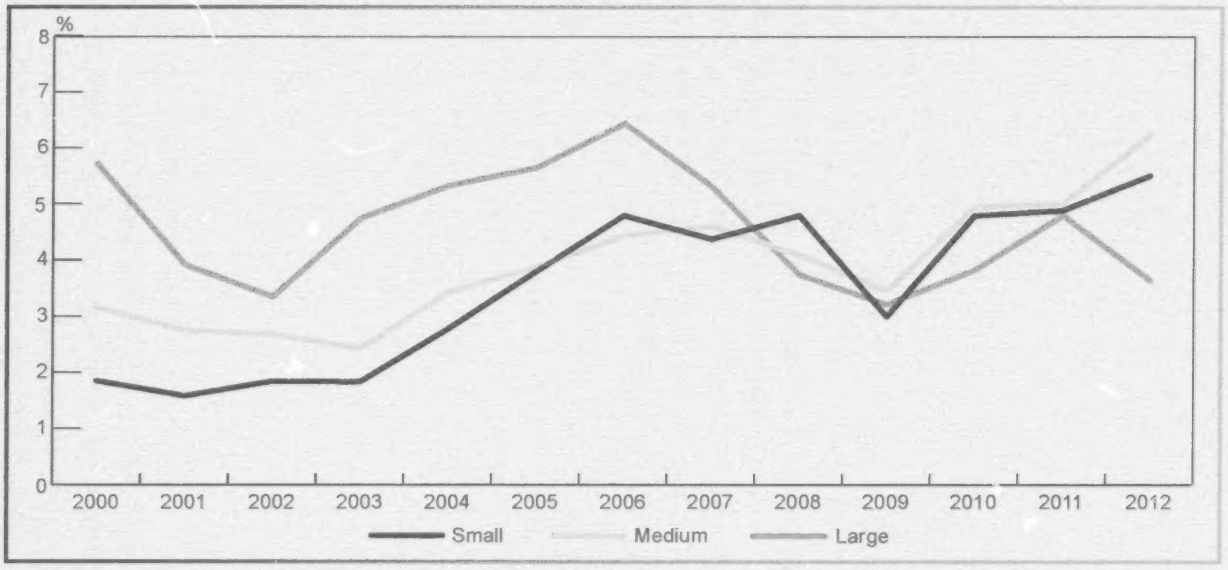
12. It should be noted that while medium-sized businesses have operated more efficiently, they have also operated on lower margins and, consequently, the greater efficiency has not translated into greater profitability.

ROA and ROE—by Size of Business

ROA is equal to net profit divided by average total assets. It is composed of net profit margins (net profit divided by total revenue) and asset turnover (total revenue divided by assets). Multiplying these two ratios together produces the company's ROA, which is the amount of net profit generated per dollar of assets controlled by the firm.[13] ROA is a measure of capital utilization and higher ROAs suggest more effective conversion of assets into profits.

Figure 5.1 compares ROAs across size categories. As can be seen, large businesses started the period generating the highest returns, followed by medium-sized businesses and then small businesses. Specifically, in 2000, large businesses earned 5.7 percent on assets compared to 3.2 percent for medium-sized businesses and 1.9 percent for small businesses.

Figure 5.1
Return on Assets by Business Size (percentage), 2000–12



Sources: Statistics Canada, *Financial and Taxation Statistics for Enterprises*, 1999–2012; and author's calculations.

Returns for all business size groups suffered in 2001 following the economic slowdown, but, on aggregate, remained positive. Returns strengthened over the 2004–06 growth period. It is interesting to note that, while small and medium-sized businesses underperformed large businesses at the start of the evaluation period, they outperformed large businesses over the second half of the period. SME's outperformance over the second half of the period was driven primarily by a drastic improvement in net profit margins in certain sectors. In particular, small and medium-sized businesses in the professional, scientific and technical services sector saw net margins increase by over 10 percentage points between 2000 and 2012 (see Table 4.1). A 4 percentage point surge in net profit margins in the construction sector, another large SME sector, also helped pushed SME's ROA above that of large firms.

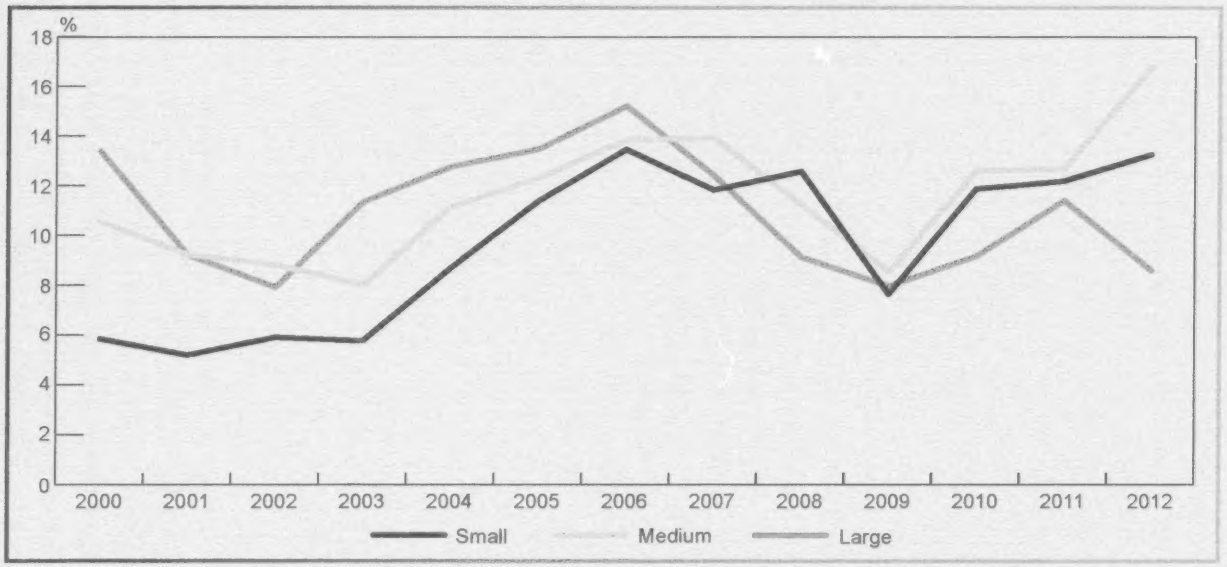
Despite the reversal in performance over the second half of the period, large businesses had the strongest overall performance across the entire 2000–12 period, earning an average ROA of 4.6 percent, compared to 3.9 percent for medium-sized businesses and 3.5 percent for small businesses.

13. $\textit{Asset Turnover} \times \textit{Net Profit Margin} = \frac{\textit{Total Revenue}}{\textit{Assets}} \times \frac{\textit{Net Profit}}{\textit{Total Revenue}} = \frac{\textit{Net Profit}}{\textit{Assets}} = \textit{Return on Assets}$

ROE is another measure of capital utilization. It measures the efficiency with which companies use owner capital—in other words, it measures how effective companies are at earning returns on shareholders' investments. It is calculated by dividing annual net profit by average shareholder equity.

As shown in Figure 5.2 changes in ROE followed the same trends as ROA. Large businesses began with the largest return of 13.4 percent in 2000, followed by 10.5 percent and 5.8 percent for medium-sized and small businesses respectively. ROE for all business sizes declined early in the period, and then increased from 2004 to 2006.

Figure 5.2
Return on Equity by Business Size (percentage), 2000–12



Sources: Statistics Canada, *Financial and Taxation Statistics for Enterprises*, 1999–2012; and author's calculations.

In contrast to ROA, medium-sized businesses earned the highest average ROE over the period at 11.5 percent. Large businesses had an average ROE of 10.9 percent, and small businesses of 9.6 percent. The data since 2009 indicates that large businesses' ROE is struggling to return to pre-recessionary levels. This is likely due the large concentration of large businesses and declining trend of ROE in the agriculture, mining and manufacturing sectors.

ROA and ROE—by Sector

Table 5.1 presents yearly ROA and ROE for SMEs by sector. For most sectors, returns followed a similar pattern as those presented in Figures 5.1 and 5.2. Pre-recession returns were highest in the construction sector and were lowest in the manufacturing sector. Returns after the recession improved most significantly for SMEs in the manufacturing and the transportation and warehousing sectors. The professional, scientific and technical services sector generated the largest post-recession returns posting an average ROA of 9.6 percent and an average ROE of 22.2 percent over 2010–12.

Table 5.1
Average Return on Assets (percentage) (top row) and Average Return on Equity (percentage) (bottom row) of SMEs by Sector, 2000–12

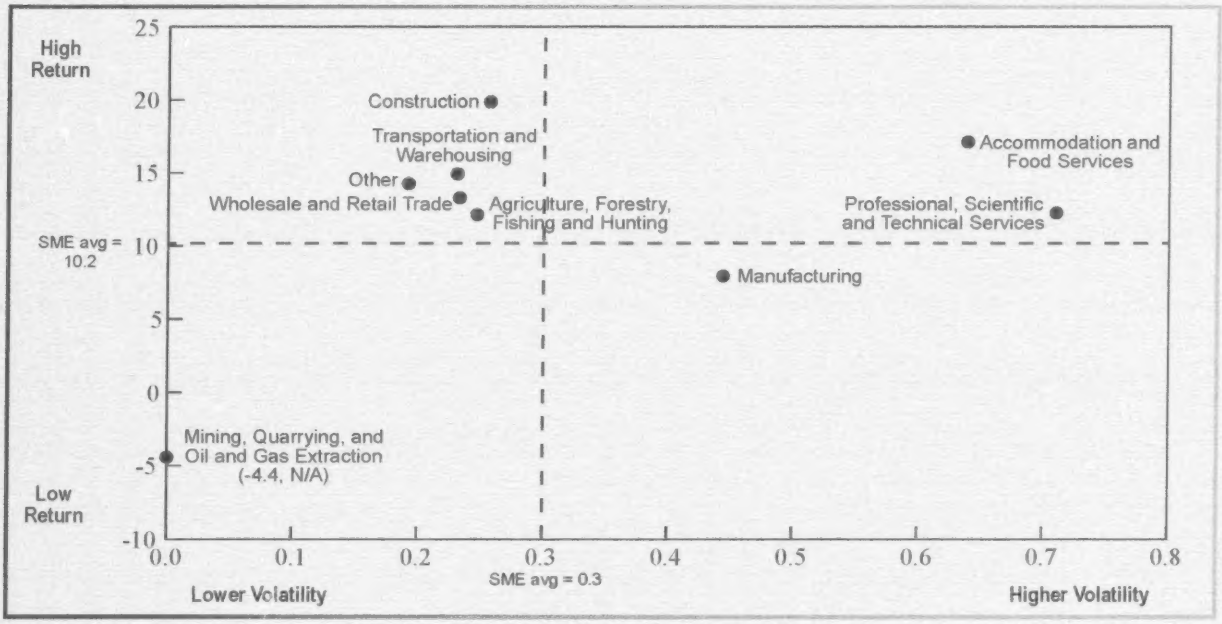
Sector	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Avg
Agriculture, Forestry, Fishing and Hunting	4.2	4.4	4.0	2.5	3.5	4.2	4.5	5.4	6.5	3.8	5.6	7.4	7.2	4.9
	11.2	11.7	10.7	6.6	9.3	11.1	11.8	13.9	15.9	9.2	13.3	16.9	15.9	12.1
Mining, Quarrying, and Oil and Gas Extraction	-3.5	-2.1	-3.2	-0.8	-0.5	-0.9	-0.8	-5.5	-3.9	-2.6	-0.7	-5.8	-4.5	-2.7
	-6.3	-3.8	-6.2	-1.6	-0.9	-1.6	-1.3	-8.9	-5.9	-3.8	-1.0	-9.2	-7.1	-4.4
Construction	2.4	2.9	3.4	4.0	4.9	6.1	6.9	7.6	7.0	4.9	5.6	6.0	6.8	5.3
	10.7	13.3	15.9	17.7	20.1	23.9	25.9	28.2	25.4	17.3	18.8	19.4	21.4	19.8
Manufacturing	3.2	1.7	2.0	0.9	1.7	2.0	3.2	2.8	3.5	0.8	3.1	3.7	5.0	2.6
	9.1	4.9	5.8	2.6	5.2	5.9	9.7	8.2	10.0	2.1	8.6	10.3	13.4	7.4
Wholesale and Retail Trade	2.2	2.4	2.8	2.9	3.5	4.2	4.9	5.0	4.9	4.3	5.8	5.6	6.1	4.2
	7.9	9.1	9.9	10.2	12.3	14.2	15.7	15.7	15.3	13.0	16.6	15.7	17.0	13.3
Transportation and Warehousing	3.8	3.2	2.8	2.7	3.6	4.7	6.0	4.6	5.8	3.4	5.3	6.7	6.9	4.6
	14.7	13.2	11.1	9.8	12.6	16.1	19.3	14.6	18.7	10.2	15.6	19.3	19.0	14.9
Professional, Scientific and Technical Services	2.7	-0.2	0.3	0.2	2.2	4.7	6.2	7.7	7.5	6.5	8.7	10.4	9.6	5.1
	6.6	-0.5	0.7	0.5	5.9	12.6	15.9	18.5	17.6	15.0	19.3	24.1	23.2	12.2
Accommodation and Food Services	-0.1	0.6	0.7	0.4	1.7	2.5	4.5	5.1	5.2	3.3	4.3	3.9	4.8	2.8
	-1.1	5.2	6.0	3.0	13.5	19.1	30.3	30.9	29.8	18.6	22.4	20.1	24.5	17.1
Other	3.0	3.3	4.3	3.6	4.4	5.1	6.3	6.5	6.4	5.4	6.1	7.0	7.9	5.3
	11.0	11.9	11.6	10.2	12.5	14.6	17.8	17.6	16.4	13.1	14.3	16.4	17.8	14.3

Sources: Statistics Canada, *Financial and Taxation Statistics for Enterprises*, 1999–2012; and author's calculations.

Figure 5.3 compares ROE and the corresponding CV by sector. The high return/low volatility sectors were construction; transportation and warehousing; other services; wholesale and retail trade; and agriculture, forestry, fishing and hunting. The high return/high volatility sectors were the accommodation and food sector and the professional, scientific and technical sector. Part of the reason for this volatility is that businesses in these sectors tend to use a lot of debt, which leads to naturally higher swings in performance.[14] The manufacturing sector struggled in this period, facing both low returns and higher volatility. The mining, quarrying, and oil and gas extraction sector experienced losses over the period so its coefficient of variation was not applicable.

14. Businesses and industries that have more fixed costs (operating or financing) relative to variable costs in their costs structures experience greater variation in operating and net income as revenues fluctuate. Mathematical derivations of this phenomenon are presented in most corporate finance textbooks, such as *Corporate Finance and Portfolio Management*—Volume 4, 2007.

Figure 5.3
Average Return on Equity (vertical axis) of SME Industries Compared with the Coefficient of Variation (horizontal axis), 2000–12



Sources: Statistics Canada, *Financial and Taxation Statistics for Enterprises*, 1999–2012; and author's calculations.

Sharpe Ratios—Size of Business and Sector

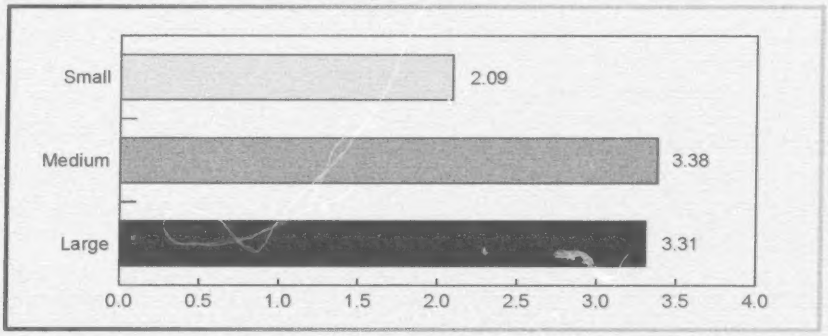
For a comprehensive analysis of SME performance, the analysis needs to examine risk-adjusted returns. In this context it means analyzing excess returns in relation to performance volatility. One way this can be done is by using a variation of the Sharpe ratio.[15] Developed by Nobel Laureate William F. Sharpe, the Sharpe ratio measures the average ROE over the evaluation period in excess of the Government of Canada 10-year benchmark bond yield divided by the standard deviation of ROE. Higher Sharpe ratios indicate greater risk-adjusted performance. Sharpe ratios can increase because of greater returns, falling interest rates, or greater stability in performance. When returns are looked at in isolation, a jump in ROE could falsely indicate an increase in economic profitability when none in fact exist.[16] It could also indicate greater economic returns when, in reality, the sources of those returns are highly unstable. Looking at excess returns per unit of risk helps guard against false reads in the ROE measure alone.

Figure 5.4 presents Sharpe ratios by size of business. As can be seen, medium-sized and large businesses earned the highest risk-adjusted returns over the evaluation period, with Sharpe ratios of 3.4 and 3.3 respectively. Small businesses earned the lowest risk-adjusted returns with a Sharpe ratio of 2.0.

15. Defusco, Richard A., Dennis W. McLeavey, Jerald E. Pinto, and David E. Runkle, *Quantitative Methods for Investment Analysis*. CFA Institute, 2004.

16. Economic profits differ from the traditional accounting profits (or net profit) in that they take into consideration the opportunity cost that was foregone in order to pursue a specific investment. Therefore, although indicators such as ROA and ROE demonstrate changes in accounting profits, they do not take into consideration the profits that could have been gained by pursuing other investments.

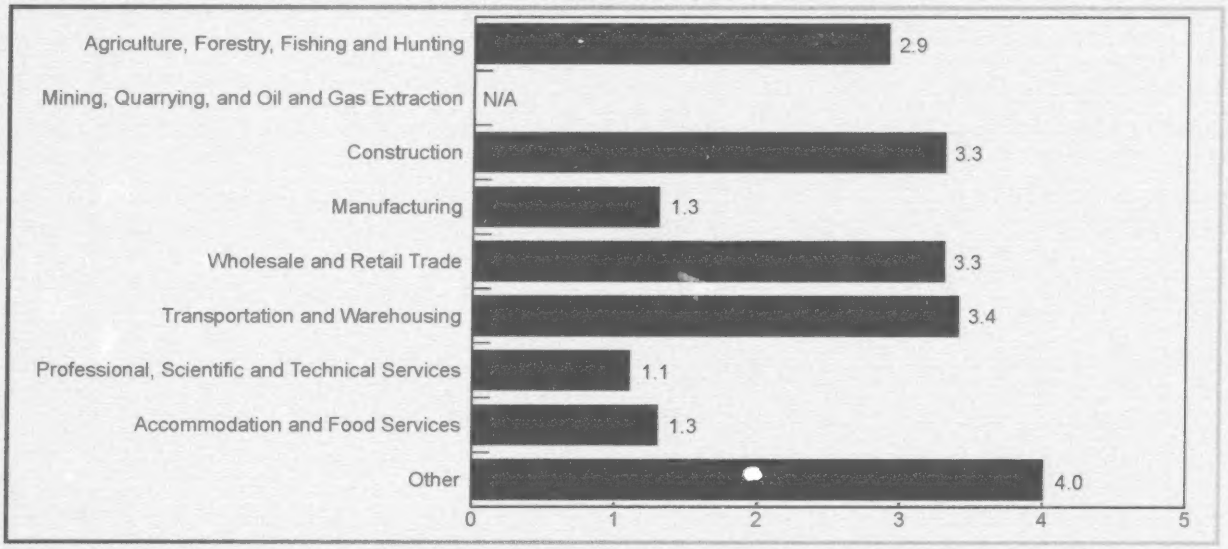
Figure 5.4
Variation of the Sharpe Ratio by Business Size, 2000–12



Sources: Statistics Canada, *Financial and Taxation Statistics for Enterprises*, 1999–2012; The Bank of Canada, CANSIM Table 176-0048; and author's calculations.

Figure 5.5 presents Sharpe ratios by sector. SMEs in other services, which includes repair and maintenance services and personal and laundry services earned the highest risk adjusted returns. It is worth noting that many of these services can be seen as necessities, and would therefore experience smaller fluctuations in demand relative to other industries. The stable performance of SMEs in other services was also demonstrated earlier in the report through low coefficients of variations for both revenue and return on average assets (Figure 2.3 and Figure 5.3).

Figure 5.5
Variation of the Sharpe Ratio of SMEs by Sector, 2000–12



Sources: Statistics Canada, *Financial and Taxation Statistics for Enterprises*, 1999–2012; The Bank of Canada, CANSIM Table 176-0048; and author's calculations.

SMEs in agriculture, forestry, fishing and hunting; construction; wholesale and retail trade; and transportation and warehousing also produced relatively high risk-adjusted returns with Sharpe ratios all around 3.0.

Risk-adjusted returns for SMEs in the manufacturing sector; the professional, scientific and technical services sector; and the accommodation and food services sector were lowest with Sharpe ratios all around 1.0. Loses in the mining, quarrying, and oil and gas extraction sector meant a meaningful Sharp ratio could not be calculated.[17]

6. Financial Strength

After understanding how fast SMEs are growing and how profitable they are, it is important to assess their financial health as financial sustainability depends on having a solid foundation.

The key factor affecting financial health is debt. A company with more debt has a greater percentage of fixed costs to its total costs. In good times this is less of a concern, but in bad times it can become increasingly difficult for businesses to make scheduled interest and principal payments.

A common measure of levels of debt, or leverage, is the debt-to-equity ratio. It is calculated by dividing total debt by total shareholder equity.[18] A higher ratio indicates a greater proportion of debt on the company's books and greater risk of default. A second measure is the debt repayment ratio. This is measured by dividing total liabilities by average annual after-tax profits. It gives a sense of how long it would take a business to pay down its debts given its normal earnings power. Both of these metrics are examined below.

Debt-to-Equity and Debt Repayment Ratio—by Size of Business

From 1999 to 2012 there was a sustained drop in the use of leverage by small and medium-sized businesses, with debt-to-equity ratios falling from 2.0 to 1.4 for small businesses and 2.3 to 1.6 for medium-sized businesses (Figure 6.1). Large businesses remained steady, with an average debt-to-equity ratio of 1.4.

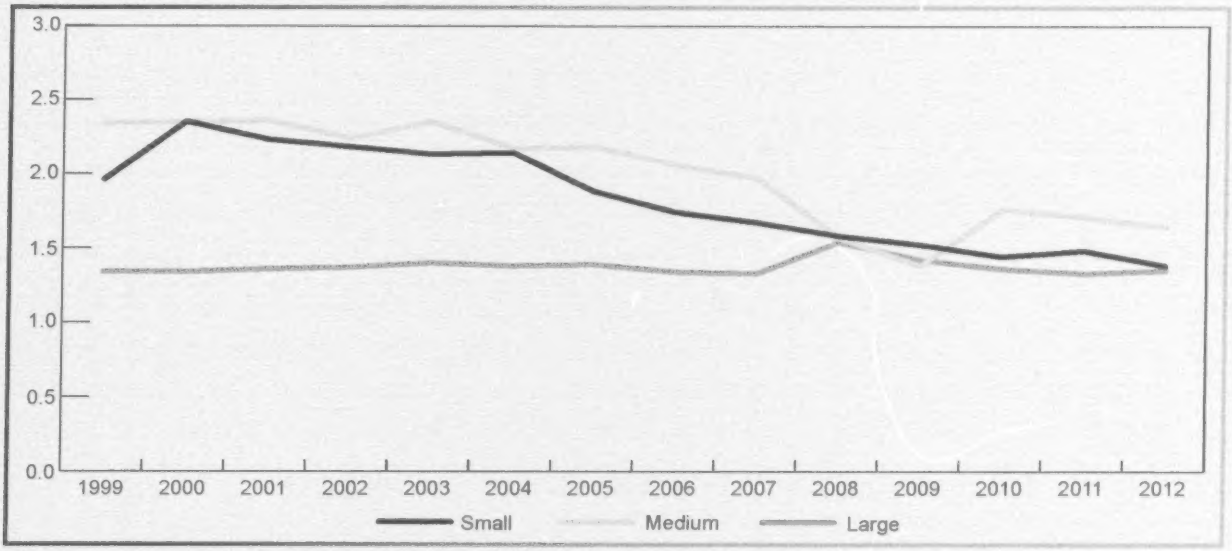
Similarly, it is evident that small and medium-sized businesses deleveraged themselves over the 1999–2012 period since their debt repayment ratios fell from 22.8 to 11.2 and 20.0 to 10.7 respectively (Figure 6.2). Debt repayment ratios for large businesses stayed relatively flat throughout the time period, with an average ratio of 13.7. Large businesses ended the time period with a debt repayment ratio of 16.7, meaning that it would take an average large Canadian business about 16.7 years to pay-off their debts given their normal earnings power.

The decline in debt-to-equity ratios and debt repayment ratios is reassuring because lower debt levels can allow businesses to better handle economic shocks that can arise from increases in interest rates. Businesses that are less indebted also often have access to greater sources of equity or debt when they need it, which can help them to pursue new growth opportunities.

17. The poor performance seen in the mining, quarrying, and oil and gas extraction sector appears only with small and medium-sized businesses. Canadian large businesses in this sector tend to perform quite well.

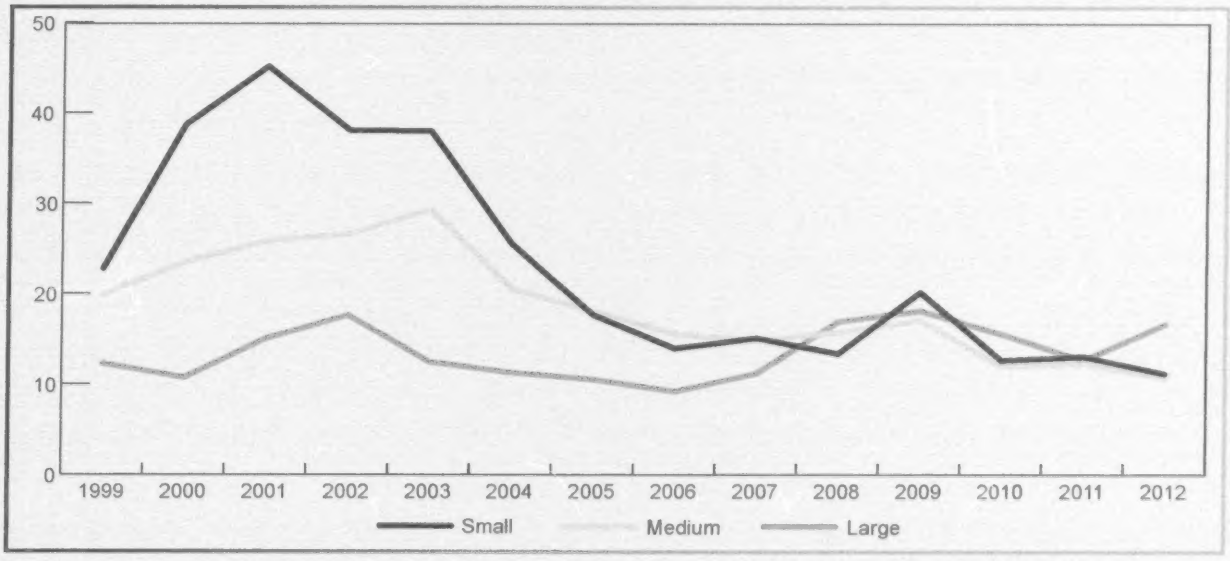
18. Debt and equity are two main sources of financing available to businesses to fund their operations. Determining which and how much of each to seek depends on the goals of businesses, the risk tolerance of owners, and the amount of control owners wish to maintain. The main advantages of debt financing is that it allows business owners to raise financing while retaining ownership control, whereas equity financing requires business owners to give up some of their ownership control. An advantage of equity financing is that the business owner is not obligated to make scheduled payments, whereas debt servicing can be difficult to maintain for certain types of businesses with negative or volatile cash flows.

Figure 6.1
Debt-to-Equity Ratio by Business Size, 1999–2012



Sources: Statistics Canada, *Financial and Taxation Statistics for Enterprises*, 1999–012; and author's calculations.

Figure 6.2
Debt Repayment Ratio by Business Size, 1999–2012



Sources: Statistics Canada, *Financial and Taxation Statistics for Enterprises*, 1999–2012; and author's calculations.

Debt-to-Equity and Debt Repayment Ratio—by Sector

Deleveraging was a general trend observed across all sectors over the period (Table 6.1). SMEs in accommodation and food services were the most highly leveraged group of businesses for most of the period. This would have contributed to the large spread between their average ROA and average ROE.

SMEs in mining, quarrying, and oil and gas extraction were the least leveraged group of businesses as measured by their debt-to-equity ratio. However, after taking into account their negative earnings, it would take them longer than any other business group to pay down their debts. The debt repayment ratio for manufacturing in 2012 was at its lowest since 1999.

Table 6.1
Debt-to-Equity Ratio (top row) and Debt Repayment Ratio (years) (bottom row) of SMEs by Sector, 1999–2012

Sector	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Avg
Agriculture, Forestry, Fishing and Hunting	1.6	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.5	1.4	1.4	1.3	1.2	1.2	1.5
	18.1	15.5	14.8	16.1	26.6	18.9	15.3	14.2	11.6	9.4	15.4	10.5	7.9	7.9	14.4
Mining, Quarrying, and Oil and Gas Extraction	0.9	0.7	1.0	1.0	0.9	0.9	0.7	0.7	0.6	0.4	0.4	0.5	0.6	0.5	0.7
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Construction	3.2	3.7	3.4	3.8	3.2	3.1	2.8	2.7	2.7	2.6	2.4	2.3	2.2	2.1	2.9
	20.9	33.3	27.2	23.4	19.8	15.9	12.6	11.2	10.2	10.8	14.4	12.8	11.9	10.4	16.8
Manufacturing	1.8	1.9	1.9	1.9	2.0	2.0	2.1	1.9	1.9	1.8	1.7	1.8	1.7	1.7	1.9
	12.0	21.4	38.9	33.4	—	39.2	34.6	21.0	23.8	19.1	—	20.2	17.1	12.5	24.4
Wholesale and Retail Trade	2.4	2.8	2.7	2.5	2.5	2.5	2.2	2.2	2.2	2.1	1.9	1.8	1.8	1.8	2.2
	21.4	34.4	30.3	26.5	25.0	20.4	16.4	14.3	14.2	14.1	15.1	11.3	11.7	10.6	19.0
Transportation and Warehousing	2.5	3.3	3.0	2.8	2.5	2.5	2.4	2.1	2.2	2.2	1.8	2.1	1.7	1.7	2.3
	18.2	21.0	24.3	26.6	26.6	20.7	14.7	11.9	15.6	11.9	19.4	12.7	9.9	9.4	17.3
Professional, Scientific and Technical Services	1.3	1.7	1.7	1.6	1.7	1.7	1.6	1.5	1.3	1.3	1.3	1.1	1.5	1.3	1.5
	14.1	25.8	—	—	—	30.1	13.4	9.8	7.9	8.0	8.8	6.2	6.1	6.2	12.4
Accommodation and Food Services	7.2	8.1	8.8	7.5	7.3	6.8	6.3	5.3	4.8	4.8	4.4	4.1	4.3	3.9	6.0
	43.7	—	—	—	—	53.0	34.0	19.3	17.0	16.3	24.8	19.3	21.5	16.8	26.6
Other	1.7	4.5	1.7	1.8	1.9	1.9	1.8	1.8	1.7	1.5	1.4	1.3	1.3	1.2	1.8
	15.6	27.7	20.0	15.2	18.6	15.7	13.2	10.5	10.1	9.7	10.8	9.7	8.4	7.1	13.7

Sources: Statistics Canada, *Financial and Taxation Statistics for Enterprises*, 1999–2012; and author's calculations.
Note: "—" indicates that the data is not meaningful as the sector posted losses in all periods.

7. Conclusion

Representing about 99 percent of Canadian businesses, SMEs play a critical role in the Canadian economy. While SMEs have many social and environmental goals and responsibilities, the primary operating objectives of all for-profit business owners are to sell products/services, generate profits, operate efficiently, earn acceptable returns on their investments, and control against risks.

Businesses cannot survive for a long time if all of these objectives are not met, particularly if they are not selling products/services and earning sufficient profits. Profits represent the primary source of income and means of livelihood for many entrepreneurs and their families. Sales revenues are needed to cover the costs of the business, buy raw material and finished goods, and pay employee salaries. Sales and profits are also needed to expand and grow businesses. If the amount of sales and profits generated and reinvested back into a business is too low, entrepreneurs will find it very difficult to raise the capital needed to expand operations.

Furthermore, businesses will only generate profits if they operate productively. Businesses achieving higher asset turnover ratios are run more productively than businesses achieving lower asset turnover ratios. Higher asset turnover ratios provide a general signal about the operating efficiency of businesses and hints at their capacity to generate profits in the future.

The underlying returns on investment are the final monetary rewards entrepreneurs receive for investing their savings, time, and energy into their businesses. It is this reward that motivates entrepreneurs, rewards them for taking on debt and bearing the financial risks of bankruptcy, and drives them forward to achieve even greater levels of success.

All that said, sales, profits, operating efficiency, returns and risk are important dimensions of businesses and, as such, it is important for government to monitor how SMEs are performing along each of these dimensions. Also, given the importance of SMEs to economic growth and job creation, supporting the operating and financial success of SMEs is a necessary policy concern.

The information presented in this report provided a historical assessment of the operating and financial performance of Canadian SMEs and the causal relationships between variables and should be useful for policymakers and economists involved in policy and strategy formulation.

Annex—Key Ratios

$$\textit{Net Profit Margin} = \frac{\textit{Net Profit}}{\textit{Total Revenue}} \times 100\%$$

$$\textit{Average Tax Rate} = \frac{\textit{Total Federal Taxes}}{\textit{Taxable Income}} \times 100\%$$

$$\textit{Asset Turnover} = \frac{\textit{Total Revenue}}{\textit{Average Assets}}$$

$$\textit{Return on Assets} = \frac{\textit{Net Profit}}{\textit{Average Assets}} \times 100\%$$

$$\textit{Return on Equity} = \frac{\textit{Net Profit}}{\textit{Average Equity}} \times 100\%$$

$$\textit{Sharpe Ratio} = \frac{(\textit{Average Return on Equity} - \textit{10-year Average Bond Yield})}{\textit{Standard Deviation of Return on Equity}}$$

$$\textit{Total Debt-to-Total Equity} = \frac{\textit{Total Liabilities}}{\textit{Total Equity}}$$

$$\textit{Total Debt Repayment Ratio} = \frac{\textit{Total Liabilities}}{\textit{Net Profit}}$$